

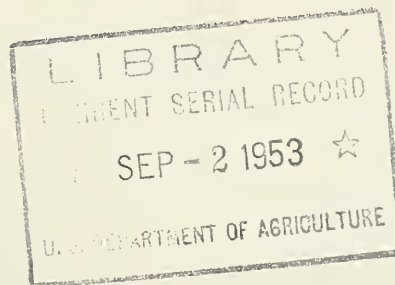
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MARKETING ACTIVITIES



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SHAPING AGRICULTURE'S FUTURE

By John H. Davis Page 3

The future of American agriculture lies with our farmers. That is the theme of this article by the Director of Commodity Marketing and Adjustment and President of the Commodity Credit Corporation, USDA. Mr. Davis also raises some points for farmers to consider in reaching a decision as to what this future should be.

GRAIN HANDLING SAVINGS

By Perry S. Richey and Thew D. Johnson Page 7

Losses in grain handling and marketing amount to millions of dollars annually. Here is a study by two specialists of PMA's Marketing and Facilities Research Branch which indicates that modernization of the marketing system could pay for itself in a short time by preventing most of these losses.

RESEARCH HITS THE ROAD -- TO LOWER MARKETING COSTS

By Ben James Page 10

A roundup of improvements and efficiencies in the transportation of farm commodities, most of them simple, which are trimming marketing costs tremendously. Mr. James is with PMA's Information staff.

CONSUMER EGG PREFERENCES

By A. William Jasper Page 14

What do consumers expect and desire in the eggs they buy? Mr. Jasper of PMA's Poultry Branch analyzed 31 consumer studies on eggs, made over a period of years, to arrive at these findings. The work was done under the Agricultural Marketing Act of 1946.

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Shaping Agriculture's Future

By John H. Davis

American agriculture today is in a critical period. Important decisions must be made following a period of total war plus a military emergency. These decisions could have a profound effect on our entire economy. They certainly hold the future of American agriculture.

How these decisions are made and what methods are adopted to deal with the problem of adjustments lie within the province of the American farmers. They can, in large part, make the future of American agriculture what they want it to be. There are, however, three basic items that need to be considered: (1) the present farm picture, (2) the future that is available, and (3) how to get from the present to the future.

The present situation gives little choice. Our Nation cannot afford to risk collapse of its agricultural industry. Nor should our farmers be placed in a position where they will be forced to roll back their standards of living. The existing overall farm program must be made to work the best it can until we get something better to take its place.

Most thoughtful people realize that present farm programs have some serious weaknesses and are inadequate to meet the needs of the 1950's. But this must not prevent us from using existing farm programs to meet the present situation when they are the only tools at hand. In utilizing the present programs to meet our immediate problems, we obviously need to make such improvements as we can and still get the job done. But we must not delay needed action on the farm price front just because present farm programs may not be to our liking.

We must make price supports and acreage adjustment effective now so that the farmer will not be crushed by the price-cost squeeze--the result of low returns for what he sells and high costs for what he buys. To follow such a course in 1953 is not simply a matter of complying with the law. It is necessary to safeguard the American economy at a critical time. This country cannot afford a depression-sick agriculture.

While moving full speed ahead in dealing with the current problems, we should take full advantage of any opportunities to work out desirable revisions in the present farm programs and place more responsibility on private enterprise. By meeting the present situation successfully we will have time in which to develop more desirable farm programs and put them into operation without slowing down our economy in the process. We must take care of both the present and the future. Our basic aim must be to provide farmers with incentives and opportunities to earn a living comparable to that of other groups. The farm programs we need to develop are

those that will meet the needs of our time and also help farmers build the kind of future they want.

We live in a land that has developed a great productive capacity. The progress we have made is in direct relation to what we have done to make more goods available to more people. In the past 15 years alone the level of living of the average American has increased by about one-half. In other words, the average person in the United States is now consuming about 50 percent more economic goods and services than just before World War II. This has been possible because of increased productivity, both in agriculture and in industry.

The widespread use of advanced techniques in agricultural production has had a profound effect on our whole economy. It is one of the basic reasons why this country has progressed so much in making more goods available to more people and thereby boosting the general standard of living. Land which once had to be devoted to growing feed crops for draft horses and mules was released for other uses when these work animals were replaced by tractors. The introduction of mechanical power and the development of improved farming practices which increased yields made it possible for an individual farmer to cultivate more land and increase production. Extra manpower was thus released from farms and made available for productive work in other enterprises. Today, the farm population represents about 15 percent of the United States total. Two decades ago it was a little under one-fourth, and four decades ago the farm population represented about one-third of the Nation's total.

We live in a country that is still growing, still expanding in its requirements for food and fiber. Looking back over the years, we can marvel at what has taken place in our economy. Great progress has been made in virtually every segment and on all fronts. But there still is plenty of room for even greater progress. The growth and development we have experienced so far has barely scratched our potential for the future.

There are a number of things we need to keep in mind when we consider what our country's future might be. We have a population that is expanding steadily. Today it totals 160 million. In the last 15 years alone we had a gain of about 31 million people.

The increase that is taking place in our national population is full of significance for our economy. It means a greatly expanded market here at home for the products from our farms and factories. More people will have to be fed, clothed, and housed. This will mean more jobs and more production to satisfy an even higher standard of living than we now have.

If our rate of economic growth continues as it has in the past, the average person should, say by 1960, have a level of living at least 15 percent above that of today. By 1960, our population total will be up to around 175 million. This will be an increase of some 15 million from the present number. Even if we allow for no increase in the level of living between now and 1960 and say that consumption would continue at the same rate as in 1952, the 1960 population of this country would still be consuming farm products at a rate 9 percent higher than last year. To meet

such a requirement, we would have to expand the production of many of the farm products which are now being produced in excess of present population needs. Our 1960 output of meat would have to be 2 billion pounds greater than the total that was produced and consumed in 1952. We would have to supply an additional 500 million dozen eggs and an extra 1 billion pounds of milk solids. To produce these livestock products we would use 10 million more tons of feed grains than we consumed in the year from October 1951 to September 1952. This would be about 8 million more tons of feed grains than we produced in 1952. Meeting 1960 food requirements here at home would also necessitate producing more of many other products, including fruits and vegetables.

The fact that our country is still growing, still expanding, gives the American farmer reason for optimism. The strong growth potential of both our population and our economy sets the stage for a more promising future than any period of the past. The question is: How do we get from the present to the future we desire?

As a starting point, there must prevail among all of us, on farms and in our towns and cities, a general agreement on what kind of an agriculture we want in this country. This means clarifying our individual thinking and developing an understanding of our agriculture's basic problems and their causes. After we have done that much, we then need to put the full measure of our brain and brawn into getting the job completed.

Our experience in dealing with agriculture's problems clearly shows that farm programs must be developed by an evolutionary process. There is no quick panacea or sudden cure that can be applied to solve deep-seated difficulties. We still do not have a satisfactory technique for balancing supply with demand nor to assure fair prices and a reasonably stable level of income to agricultural producers.

Looking ahead, our agricultural policy and program should be designed to maintain and improve our productive resources, expand markets, encourage full production and consumption of farm products, and contribute to a steadily rising level of living, both on and off the farm. To do this, we will need to devote more attention to the conservation and wise use of our land, water, and other resources. We will need to continue to develop more and more efficient methods of producing and marketing agricultural products. Also, our agricultural policy and program will need to be geared into the general economic policies on such matters as money and credit, taxation, wages, social security, public works, and many others. A well-designed and executed farm program and policy could help a great deal both to reduce the severity of depressions and to moderate the excesses of inflationary booms.

The only way the American people can continue to enjoy a rising level of living is by finding practical ways to continue the upward trend in productivity. The great increase in agricultural productivity experienced in recent years has been made possible by two things: First, the accumulation of research, scientific, and technical knowledge, and second, farm incomes high enough to enable so many of the Nation's farmers to put these findings and developments into practice. For the American farmer to con-

tribute as much as possible to further steady economic progress in the years ahead, it is essential that farm income be sufficient to cover the increase in cash costs of farming and to enable farm families to participate in the rising American standard of living. And that means maintaining a high level of well distributed consumer buying power here at home and also encouraging good market outlets abroad.

In one form or another, the problem of parity income for agriculture will be with us, and it must be considered in developing any long-term farm program. The Agricultural Act of 1948 defined parity income as "that gross income from agriculture which will provide the farm operator and his family with a standard of living equivalent to those afforded persons dependent upon other gainful occupation." In all probability, the farm population as a whole never has had parity income by this definition. We still need programs and policies that will prevent farm income from dropping too far below the standard for any considerable period of time, and to enable the farmer to share in the benefits of higher productivity.

As our economy grows, agriculture's part, although vitally important, will become relatively smaller. This is nothing over which we need to become alarmed. It is merely a continuation of the trends in an increasingly industrial Nation. In 1952, one person out of every six lived on a farm. Forty years ago it was one out of every three. Although one person in six lived on farms last year, net income from agriculture was only 7 percent of the total national income. This, of course, means that while many farm families are probably enjoying a standard of living equal to that of nonfarm people, there are many other farm families with very low standard of living. And if improved techniques of agricultural production and marketing are to continue, it is clear that even though fewer people may be involved in agriculture in the future, we still will have to work toward attaining parity income for those who remain on our farms.

Family-type farms, both large and small, have long constituted the backbone of our country. They play an important role both economically and socially in the life of our Nation. Therefore, it is important to all of us that the family-type farm be preserved, but merely preserving the family farm is not enough. We must remember the special problems of the small low-income farmer. There are many small farmers in this country who do not have the necessary resources such as land, credit, and others, that will enable them to operate with a reasonable degree of efficiency and thus provide a decent standard of living for the farm family. For these small farmers special measures need to be developed in order to provide them with the assistance they need to broaden their opportunities for improving their circumstances. With a little of the right kind of help, many of these small farms can be raised to a more profitable level. For some others, the problem of the operator is not an agricultural one, but rather one of finding opportunities in other occupations.

If we are successful in maintaining a strong expanding economy, as we must be, much of the income disparity within agriculture itself, as well as disparity between agriculture and the rest of the economy, may well disappear. We can have a future with more opportunity for better living than prevailed in any period of the past. Such a great future can be ours if we all work for it.

Grain Handling Savings

By Perry S. Richey and Thew D. Johnson

Millions of dollars annually are lost by grain farmers, handlers, and processors. Most of it is a needless loss. It could be prevented through modernization of grain handling and marketing operations. What's more, cost of this modernization can be expected to be paid off within a surprisingly reasonable length of time through savings, or rather increased grain values.

While this situation is of primary importance in the newly expanding grain areas of the Southeast and South, it also is a problem affecting some of the larger grain producing areas of the country. The seriousness of it is graphically illustrated in a recently concluded study by USDA marketing research specialists of grain handling in the Piedmont area of North Carolina. In this 38-county area alone, the lack of on-and-off-farm storage and modern handling facilities for grain is costing producers and handlers several millions of dollars a year, or a minimum of 15 percent of the total annual value of the grain crops there.

Although it may appear far fetched to apply these findings in one area of a State which ranks relatively low in grain production to other producing areas of the country, the lack of adequate facilities for storage, handling, and marketing found in the North Carolina Piedmont area are known to exist to some degree in practically all other areas. The findings are particularly applicable to the other southeastern and southern States because of the similarity of climatic conditions which contribute to the high incidence of weevil infestation and high moisture content of the grain produced there.

The survey of grain marketing facilities in the North Carolina Piedmont was made by the Marketing and Facilities Research Branch of the Production and Marketing Administration, USDA, in cooperation with the Division of Markets, North Carolina Department of Agriculture, and the Extension Service, North Carolina State College of Agriculture and Engineering. The study was undertaken at the request of the Winston-Salem, N. C., Chamber of Commerce.

The survey revealed that adequate on-farm storage and off-farm storage and handling equipment at mills would cost a total of nearly \$19 million for the area. At the same time, however, it was found that by furnishing these facilities savings of \$5 to \$6 million annually could be expected on area grain crops--indicating that cost of the modernization could be amortized over a very few years.

In 1951, the North Carolina Piedmont area produced 18,561,000 bu-

shels of corn, 5,147,000 bushels of wheat, 8,671,000 bushels of oats, and 1,143,000 bushels of milo. Off-farm movement of grain the same year included 4,273,000 bushels of corn, 3,244,000 bushels of wheat, 2,951,000 bushels of oats, and 653,000 bushels of milo. A survey of a high percentage of local mills in the area revealed that in 1951 they purchased 1,643,000 bushels of corn, 3,320,000 bushels of wheat, 1,357,000 bushels of oats and 825,000 bushels of milo.

Under the current grain marketing system there, the reservoir of grain is on farms, where it is kept under conditions conducive to deterioration from excess moisture and insect damage. Very few farmers have facilities or equipment to put grain into condition for storage, or to keep it in condition. Corn is harvested and stored unhusked in the ear, and a high percentage of small grain is stored in bags. Most small grain and some unhusked corn is delivered to mills in bags where most of it must be dumped by hand.

To provide adequate handling of grain on the farms, a report based on the survey recommended the following practices: Direct harvesting of bulk grain into motortrucks; (2) handling of grain in bulk; (3) storage of bulk grain in bins; (4) shelling of corn and drying of grain; (5) treatment of grain to prevent insect damage; and (6) sale of grain by grade and quality.

It was estimated that about 20,000,000 bushels of improved on-farm storage space is needed to supplement an existing 3,000,000 bushels of satisfactory storage space. Cost of construction of on-farm bulk grain storage facilities in the area was estimated at from 30 to 75 cents a bushel, with on-farm wooden bins of 220 bushels bulk capacity costing \$120 or 54 cents a bushel. Using the latter figure, the cost of required on-farm wooden bin, bulk storage space would be nearly \$11,000,000.

Space and facilities for handling bulk grain were inadequate or completely lacking at the area mills covered by the study. Most of the millers buy grain, delivered by motortruck, from farmers as needed, keeping on hand only enough grain for 2 to 8 weeks of processing. Only a few had grain driers or bin space necessary for effective fumigation to condition grain for storage and keep it in condition. Grain was not purchased from farmers on a grade and quality basis, which contributed to a confused and unstable price situation.

Minimum requirements in facilities and equipment necessary for mills to handle grains from farms recommended by the report were: (1) motortruck scales; (2) test weight, grain sampler, and moisture tester; (3) motortruck hoist; (4) grain dump pits, with grates, in sufficient number and type to handle volume and kinds of grain received; (5) grain conveyors; (6) a grain cleaner; (7) grain distributor; (8) automatic grain scales; (9) sufficient bin or other grain storage space to handle all kinds and grades of grain received; (10) grain drying equipment; (11) magnetic separators to take "tramp" metal from grain; (12) a man lift or small elevator to the different floor levels of the facility; (13) dust collectors and exhaust fans; and (14) safety and fire fighting equipment.

The mills studied had storage space, for about 2,500,000 bushels of bulk grain and 750,000 bushels of bagged grain, which ranged from excellent to poor. Only about 1,500,000 bushels of this storage was considered adequate and it was estimated that the area required a minimum of 4,000,000 bushels additional off-farm, bulk storage facilities.

Cost of new off-farm storage facility construction at the time the study was made ranged from 39 to 75 cents a bushel and combined storage and equipment costs were estimated at \$1.25 to about \$2.00 per bushel. Using the higher figure, cost of the additional off-farm storage and equipment recommended in the report would be about \$8,000,000.

Balanced against a total cost of about \$19,000,000 for the recommended additional on-farm storage (\$11,000,000) and off-farm storage and handling equipment (\$8,000,000) are the high economic losses now suffered by area producers and handlers. Local grain authorities estimated these losses to be as much as 25 percent of annual crop there in some instances. Averaged out over a full year, however, the losses for all types of grain probably were closer to 15 percent of the annual crops.

The report estimates that with adequate storage and handling facilities and practices probably 80 percent of these deterioration losses could be prevented. On the basis of 1951 production and grain prices the preventable losses were placed at \$1,112,000 for wheat, \$3,341,000 for corn and \$416,000 for oats. By handling in bulk and eliminating the use of bags, it was estimated that about \$584,000 could have been saved on grain delivered to mills in the area in 1951. In addition, mill managers estimated that the savings in handling of bulk over bagged grain would have equalled \$291,965. Thus, the prevention of loss in quality and savings through bulk handling would have resulted in a calculated total benefit of \$5,745,000 annually for the volume of grain marketed in 1951.

While data were not available to evaluate other benefits which would accrue in the operation of an efficient grain marketing system, savings are known to exist, particularly in the time of farmers and farm labor.

The report emphasizes that the local mills are the logical point around which the expansion of needed marketing facilities should center since they already have substantial investments in storage and handling facilities and can make needed additions at less cost than completely new facilities can be constructed; are already buyers and handlers of area-produced grains and are familiar with local conditions; and their multiple-job operations including receiving, storing and caring for grain as well as grain processing will provide for maximum use of facilities, equipment, and mill labor and result in the best change for efficient operating units. Construction and operation of public grain storage facilities to rent space to farmers, mills, and other users and to carry on grain storage operations as a separate and independent enterprise does not appear economically justified at this time, it was pointed out.

The report on this study, "Grain Marketing Facilities in the Piedmont Area of North Carolina," is available from the Office of Information Services, Production and Marketing Administration, USDA, Washington 25, D.C.

Research Hits The Road- To Lower Marketing Costs

By Ben James

There's a story about a famous scientist, versed in the properties and characteristics of different kinds of dusts, who could measure the radioactivity of a grain of dust so small that it could be seen only under a powerful microscope. One day he found a streak of black dust on the otherwise clear surface of the dining room table at his home. He rubbed his finger over it and examined the smear. Being unable to identify it with the naked eye he scraped the remainder of the mysterious black powder on a paper, and carried it to his laboratory. There throughout the day when he had time he put the dust through several tests.

That evening he told his wife about the incident and said that he had been unable to identify the sample. She told her wondering husband very quickly that the dust he had hustled off to analyze was some she did not have a chance to wipe away and that it was burnt toast.

A simple answer to a simple question saved much time and work. So it is with many of the problems solved by research done along the lines of improving and lowering the cost of transportation of foodstuffs from farm to consumer. Since the enactment of the Agricultural Marketing Act of 1946, PMA marketing research specialists have worked in cooperation with railroads, trucking firms, shippers, farmers, and other branches of the Department of Agriculture to find ways and means of saving marketing costs. They very frequently turn up ideas, some of them amazing in their simplicity, that save millions a year for farmers, shippers, handlers, and consumers.

Watermelons

One recent piece of research conducted by PMA's Marketing and Facilities Research Branch concerned itself with damage suffered by watermelons in transit.

Such interesting facts as these were disclosed: In 1948, 17,175,000 watermelons were loaded for shipment to market by all producing areas; 2,175,000 of these melons never reached the consumer because of loss from damage and deterioration. A substantial part of this damage occurred in transit.

Last month, early results of transportation research in cooperation with USDA and the Agricultural Experiment Stations of Florida, Georgia, and South Carolina on a new loading method revealed the possibility of a

tremendous reduction in damage to watermelons in transit. The new method used in the research was simply to turn the melons around in loading them in railroad cars. Here's what occurred:

The Congo, a long type of melon and a heavy producer, has been popular with growers of the Southeastern States. However, shipping damage to this particular type of melon has been heavy because of bruising at the blossom end. This bruising comes about because the melons are loaded end-to-end lengthwise in the railway car, and, when the car receives end-to-end shocks in transit, the blossom end is injured by the stem end of the melon resting against it.

In the experimental method, the melons were placed crosswise in the car instead of lengthwise, so that the sides of the melons, with a greater area of surface contact, receive the in-transit impacts, rather than the ends.

The conventional lengthwise loads averaged about five times as many cracked melons and more than seven times as many bruised melons per car as the crosswise loads. The crosswise loads averaged 2.3 melons per car cracked and 19 melons bruised, as compared with 10.8 melons cracked and 140 melons bruised in the conventional lengthwise loads.

Molasses

Improved transportation and handling methods also are helping solve the molasses surplus problem. PMA's Sugar Branch made a study to uncover ways of increasing the consumption of molasses, and found big opportunities in using it for cattle feed. Because there is nothing like lowering the price of a product to open up wider markets, a study was made of some small New England firms that were delivering molasses in tank trucks at bargain prices to small feed mixers who could not afford to buy in tank car loads. This study was compared to a similar one made in Wisconsin where barrel delivery to small feed mixers was the order of the day.

Small mixers in New York, the study showed, were served by tank trucks and were therefore able to purchase molasses in bulk. In turn they found farmers there were able to buy their molasses and carry it away in their own containers or barrels supplied by the feed store. This type of distribution in New York eliminated one complete stage in marketing that was important in Wisconsin--the transportation of barreled molasses to retail stores.

Doing away with this step was in turn responsible for the reduction, in New York, of another important marketing margin--the mark-up for barreling, handling, and wholesaling. Because of the large number of rural feed stores that barrel molasses in New York, the competition for sales results in a lower margin for comparable services than was the case in the Midwest, where the number of firms that barrel molasses was much smaller.

In New York there was a spread of 3.5 cents per gallon between the price paid for molasses by the firm that barreled it, and the price that the farmer paid for the barreled molasses at the store. In much of Wis-

consin, at the same time, this spread amounted to about 11 cents per gallon.

Eggs

The cost of loss and damage in rail shipments of shell eggs as reflected in claim payments by railroads has reached an all-time high in recent years.

A study was undertaken by PMA under the Marketing Research Act of 1946 to uncover specific causes for this large unidentified damage toll. The problem was attacked from the angle of determining different methods of loading and bracing that might help cut down the losses.

An analysis of 1,680 carloads of shell eggs revealed that improper take-up of lengthwise slack in freight cars is the most important single loading factor causing damage. It was discovered that in shipments where there were 2 inches or more of lengthwise slack, two and one-half times as many cases showed damage as in shipments in which there was no lengthwise slack at all.

Cantaloups

Cantaloup shipments, too, came in for some money saving research. In 1949, 22,044 cars of cantaloups were shipped by rail and the railroads paid claims on loss and damage to containers and contents amounting to approximately \$940,000. The standard methods of loading these cars was with the crates placed lengthwise in the car, divided by a centergate.

Long-distance tests of two methods of loading were set up to find out what caused the damage and perhaps point a way to reducing it.

Fifteen pairs of test shipments were observed, in which one car with crates loaded upright, or "on-end," divided by a centergate, accompanied a second car loaded in the conventional lengthwise manner. Each pair was shipped from the same station on the same day, the cars moving together in the same train in their 10-day journey across the country to the terminal market of destination. Impact recorders to measure shocks in transit were placed in each "on-end" load.

Breakage of crates in the "on-end" loads averaged approximately one-third that of cars in which crates were loaded lengthwise. A reduction of such magnitude applied to 1949 shipments would have meant a saving of more than \$600,000 in breakage claims alone. In addition, substantial savings in labor and material would accrue to the railroads from a similar reduction of the number of crates requiring repair.

Vegetables

Another type of damage loss for which a simple cause was revealed, came to light when it was observed that there might be some relation between the top-icing of fresh vegetables and breakage of the crates in which the vegetables were shipped.

Many leafy vegetables shipped from California and Arizona to eastern markets are placed in refrigerator cars and are topped with snow ice to reduce the field heat and refrigerate the commodity throughout the transit period. Additional top ice is added while in transit.

In the observation of cars of vegetables from the West Coast to eastern markets it was noted that in many cases the top and channel ice near the bunkers of the car had melted, permitting crates to get out of row alinement, with consequent breakage. At the same time some cars were found to have so much ice in other parts of the car that the weight of the ice broke the slats of the containers on which it rested.

And, a job of extensive research cut shipping damage to lettuce and carrots about one-third by simply changing the shape of the shipping crates. This was in cooperation with the Western Growers Association.

Measurement of the depth and diameter of more than 5,000 heads of lettuce in various producing sections of California and Arizona in 1949-50 revealed that the so-called Western, or Los Angeles, crate (usually called the "LA crate"), which had been the standard container for shipping lettuce for about 30 years, was not generally well fitted to the sizes of the lettuce being packed in it.

Several modifications of the LA crates were tested for lettuce. A crate of a shape more nearly square than the LA crate gave the best results. It became known as the WGA crate. The new container is somewhat deeper and wider but slightly shorter than the LA crates and has approximately the same cubic capacity.

In 61 transcontinental shipping tests on lettuce, the WGA crate suffered 30 percent less transit and unloading breakage than did the LA crate. A subsequent check on the performance of the new crate in 16,308 carloads of lettuce and 5,636 carloads of carrots, made during the first 6 months of 1952, confirmed the results of the 1951 survey.

Since that work was done there has been a further development in the shipment of lettuce. A new process of pre-cooling the lettuce in a vacuum chamber permitted the use of fiberboard cartons in shipping, not done before because it was considered necessary to place crushed ice in the containers to remove the field heat and protect the lettuce during transportation to market. Under the new method, the "dry-packed" cartons, after flash precooling, are simply loaded in a refrigerator car under standard refrigeration, without the customary top ice. Too, it permits packing of the cartons to be done in the field, avoiding the necessity of packing and loading the lettuce through a packing shed. A further study and analysis of the relative merits of shipping by the new and old methods has been made by Western Growers Association and the Department and a report of the findings will be published soon.

Thus, millions of dollars are saved annually in damage to farm produce on the way to market, through research that detects the usually simple cause of damage and tries out ways and means of cutting the damage down until some way, usually simple, is found to do the trick.

Consumer Egg Preferences

By A. William Jasper

Whether the egg came first or not still may be debatable. More important to producers and handlers is where eggs are going so far as consumers are concerned - and why? Over the past 30 years a considerable amount of research has been devoted to these latter questions.

Particularly since World War II, a relatively large number of studies have been made of consumers' egg preferences, their buying habits, and their knowledge of eggs. Findings from these studies have furnished important information to producers and handlers on which they could adjust their production programs, their handling methods and the quality of their products. Naturally, the findings in the various studies have varied. This variance has been related both to the area in which the individual study was made and the period of time during which it was made since market conditions and buying habits are constantly changing.

Consumer Studies Analyzed

To bring together the significant results of some of the more complete consumer studies on eggs, an analysis has been made of 31 of them which were conducted in 18 different States and in Canada. Here is a summary based on this analysis.

Per capita consumption of eggs in the United States rose from 303 in 1910 to 329 in 1930 and by 1950 had jumped to 395. While improved quality, better merchandising and many other factors contributed to this, the consumer studies clearly indicate that family income, size of family, and race or nationality are the most important factors affecting the demand for eggs at a given time.

In some of the studies reviewed, it was found that while family income had some effect on quantities of eggs consumed, size of family appeared to be more directly related to this. This was borne out in other studies, where it was also observed that income did not effect whether or not consumers used eggs, but determined only the number of eggs used. A study in New York City revealed that Jewish people there were the largest consumers of eggs, while Negroes were the lowest. Another study in Columbus, Ohio showed that Negroes used fewer eggs than white consumers.

Several studies confirmed the long held idea that eggs are used primarily as a breakfast food. Other studies showed that about two-thirds of the eggs purchased were for table use; the rest for baking, cooking or other purposes. Most table eggs are fried for the breakfast meal, but in Providence, R. I., the largest number of consumers preferred boiled

eggs. The trend, however, is to fried eggs, with fewer being boiled, although poached eggs are increasing in popularity. The review also indicated that it has become relatively uncommon for housewives to purchase less expensive eggs for cooking and baking than for the table, although it was indicated a trend toward cheaper eggs for cooking can be expected during periods of falling income.

When and Where of Sale

Most consumers purchase eggs once a week and very few buy them more often than twice weekly. Retail stores and farmers together account for by far most egg sales to consumers according to several of the studies reviewed. These two retail sources vary in importance in different sections of the country. Since World War II, public markets have become comparatively unimportant as retail outlets. Hucksters or peddlers continue to retail a small percentage of eggs in most cities surveyed, with their sales highest in Baltimore and Chicago. While poultry and meat markets have accounted for a small percentage of sales for many years, recently dairy routes and dairy stores have become more important outlets.

Quality, grade or freshness, price, and size appear to be about equally important factors to housewives in making egg purchases. However, in at least one large city a surprisingly large number of consumers interviewed stated that they considered nothing in particular in purchasing eggs or simply depended upon their dealer's reputation to supply a good product. Apparently, a vast majority of consumers give little or no consideration to brand names when purchasing eggs, although in Washington State where consumers preferred to buy by brands, they stuck with the same brand until they got a bad egg and then usually changed to another brand.

There has been a decided increase in the purchase of eggs in cartons and in most areas such sales dominate. However, in some cities in such States as Kansas, Pennsylvania, Ohio, Maryland, and Delaware most housewives interviewed still purchase eggs in bulk.

Little Interest in Purchase by Weight

In studies where consumers were queried about buying eggs by weight there appeared to be very little interest, except in Providence, R. I. where slightly over 20 percent of the housewives interviewed favored it.

Housewives felt that the principal difficulty they encounter in buying eggs is finding fresh eggs or the quality they desire. Also many consumers considered high prices to be a problem. Finding clean eggs or those of a certain size or color were problems mentioned infrequently.

Most consumer complaints about eggs referred to undesirable conditions of the whites and yolks, blood or meat spots, and bad flavor, taste or odor. Fewer complaints concerned inedible eggs, thin shelled, or dirty eggs. In recent years, housewives generally have registered fewer complaints about their egg purchases.

Most housewives, according to the review, have a number of ways to evaluate egg quality; some of them are valid and others are not. However, studies in several cities revealed that from two-thirds to three-fourths of the consumers interviewed can identify high quality eggs, and a majority of them have a reasonable understanding of at least one method of determining the quality of broken-out eggs. In one survey a third of the housewives interviewed said that a firm, upstanding yolk was what they looked for in quality. Others listed as quality determinants such things as firm whites, odor, color of yolk, and absence of blood spots.

The percentage of consumers purchasing quality graded eggs varied considerably from city to city and was frequently influenced by State or municipal grade labeling requirements. For instance, in Providence, R. I., where it is mandatory that grade and size be marked on all containers in which eggs are sold, around 95 percent of the consumers interviewed purchased Grade A eggs. In some Ohio cities customers bought on grade and in others they did not. One survey, conducted in several hundred retail stores throughout the country, since World War II, developed that when consumers were asked "what grade of eggs do you prefer?" 70 percent of them replied: "fresh eggs." Eggs were actually purchased at an identical rate of 70 percent when marked "Fresh Eggs." Where eggs were purchased by grade, however, a large percentage of consumers purchased Grade A or better.

Preference with regard to shell color also varied widely between different areas, with indications that there is seldom a majority preference for any particular color. Studies showed that where preferences were expressed it was for brown eggs in such New England cities as Providence, Bridgeport, Hartford, New Haven and Waterbury and in Wilmington, Del., and for white eggs in New York City, Minneapolis and the Negro section of Columbus, Ohio.

Will Pay Premium For Quality Eggs

Many of the studies revealed that housewives are willing to pay a premium for quality eggs, and particularly for local eggs which they regard as better quality. For example, housewives interviewed in Wilmington paid an average premium of 8 cents a dozen for local eggs and 90 percent of the consumers interviewed in Wichita, Kan., said they would be willing to pay a premium for high interior quality eggs. Large size ranked second in importance as a factor for which consumer said that they would pay a premium.

Surprisingly, a large percentage of housewives purchase their eggs at sources other than where they buy most of their groceries. Furthermore, this percentage is still large when the reasonably high percentage of consumers who purchase their eggs from farmers and sources other than retail grocery stores is taken into consideration.

A report, "Some Highlights from Consumer Egg Studies," on which this article is based, is in the process of publication and should be available, from the Office of Information Services, Production and Marketing Administration, USDA, Washington 25, D. C., within a short time.

Marketing Briefs

(The program announcements summarized below are more completely covered in press releases which may be obtained on request from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. by citing the code number given at the end of each item.)

Cotton.--Loan rates for 1953-crop upland cotton, averaging 30.80 cents per pound, gross weight, basis Middling 7/8-inch, have been announced. Average loan rate for 1953-crop American-Egyptian will be 74.52 cents per pound, net weight, and for Sealand and Sea Island, 56.22 cents per pound, net weight. (USDA 1875-53)...Physical standards for the grade of Good Middling (white) cotton have been promulgated to become effective August 1, 1954. (USDA 1761-53)...All cotton remaining under certification under the Cotton Futures Regulations on August 15, 1953 will be regraded on the basis of revised grade standards for American upland cotton effective that date. No charge will be made for the regrading. (USDA 1863-53)...CCC loans on 1952 crop cotton through July 24 covered a total of 2,297,520 bales of which 1,805,590 were outstanding. (USDA 1842-53)

Dairy.--Dairy industry leaders reporting on their "self-help" marketing program have told President Eisenhower and Secretary of Agriculture Benson that MILK consumption is at record levels while BUTTER sales are increasing. (USDA 1817-53)...Dairymen in drought "disaster" areas have been declared eligible for government-owned feeds at reduced prices by Secretary Benson. (USDA 1814-53)...Purchase of CHEDDAR CHEESE for Section 32 use has been completed at a total of 13,140,000 pounds. (USDA 1808-53)...Sales of government-owned BUTTER, acquired through price support, to the Army totaled 5,770,336 pounds through July 22. (USDA 1768-53). USDA has announced that 1,180,000 pounds of CHEDDAR CHEESE from New Zealand is available for apportionment among importers under regulations establishing quotas on dairy product imports. (USDA 1724-53)

Action was taken during the past month on the following Federal milk marketing orders: DAYTON-SPRINGFIELD, Ohio, (USDA 1826-53). TULSA and MUSKOGEE, Okla., merger, (USDA 1949-53). ST. LOUIS, Mo., (USDA 1819-53). NEW YORK CITY, (USDA 1868-53). CHICAGO, (USDA 1867-53). SOUTHWEST KANSAS, (USDA 1843-53). NORTH TEXAS, (USDA 1828-53). LOUISVILLE, Ky., (USDA 1809-53). SPRINGFIELD, Mo., (USDA 1821-53). CLEVELAND, Ohio, (USDA 1866-53). TOLEDO, Ohio, (USDA 1744-53). LIMA, Ohio, (USDA 1775-53). MUSKEGON, Mich., (USDA 1739-53). PUGET SOUND, (USDA 1782-53). DETROIT, (USDA 1784-53).

Fats and Oils.--Minimum price support levels, by types and areas, for 1953-crop PEANUTS have been announced on a basis of a minimum national average of \$237.60 per ton. (USDA 1811-53)...Approximately 3,500,000 bushels of CCC-owned SOYBEANS have been offered for sale. (USDA 1740-53).

Fruits and Vegetables.--USDA has made offers to purchase for the National School Lunch Program quantities of the following commodities: Canned SOUR CHERRIES, canned green SNAP BEANS, and GREEN PEAS, (USDA 1693-53); canned PEACHES, (USDA 1827-53); and concentrated ORANGE JUICE, (USDA 1781-53)...Action has been taken in connection with marketing agreement

and order programs as follows: USDA has recommended such a program for California OLIVES, (USDA 1751-53); an administrative and shippers advisory committee has been named for Florida CITRUS Growers, (USDA 1836-53); changes have been recommended in the California TOKAY GRAPE marketing order, (USDA 1774-53); and George G. Caldwell, Portland, Ore., has been named member of the WALNUT Control Board. (USDA 1738-53)... USDA has announced revised grade-standards for canned FRUIT COCKTAIL, (USDA 1838-53) and TOMATO CATSUP, (USDA 1812-53) and has proposed revised standards for sawdust pack GRAPES, (USDA 1818-53)

Grain, Hay, and Seeds.--A national WHEAT acreage allotment of 62 million acres for the 1954 crop has been announced and August 14 was set as the date for a referendum among wheat growers on whether quotas are to be used for the 1954 crop. (USDA 1701-53)... State wheat acreage allotments also were announced. (USDA 1793-53)... A new 17-member advisory committee on grain sanitation was named jointly by USDA and the US Department of Health, Education and Welfare, with its first meeting scheduled for August 11. (USDA 1855-53)... A long range program for disposal of CCC-owned stocks of HAY, PASTURE, and RANGE GRASS SEEDS has been announced. (USDA 1789-53)... Sales of CCC WHEAT stocks have been discontinued in the Northwest. (USDA 1728-53)... Marvin L. McLain, formerly chairman of the Iowa State PMA Committee, has been named head of PMA's Grain Branch. (USDA 1732-53)... Price support rates for 1953-crop RICE, by varieties, based on a minimum national average of \$4.84 per cwt. have been announced. (USDA 1787-53)... Disposal of remaining CCC-owned stocks of AUSTRIAN WINTER PEA SEED was announced. (USDA 1874-53)... Idaho, Montana, Oregon and North Dakota have been added to the States in which distress wheat loans will be made to producers. (USDA 1865-53)

Livestock.--A committee of four members of Congress and seven representatives of USDA has been named to advise in the administration of drought emergency and other disaster programs by Secretary of Agriculture Benson. (USDA 1706-53)... Basis of farmer and stockman eligibility for Government-owned feeds, made available in Southwest drought areas, has been clarified by USDA. (1723-53)... An additional clarification was issued later. (USDA 1767-53)... Temporary committees for administration of the drought emergency livestock loan program were named. (USDA 1861-53)... Through the end of July, USDA had purchased a total of 32,506,500 pounds of processed BEEF under the Section 32 program and for MSA shipment to Greece. (USDA 1844-53)

Sugar.--USDA announced an increase of 100,000 short tons, raw value, in sugar quotas for 1953, which would give a total quota for the current year of 8,000,000 short tons. Quotas were increased for Cuba, Dominican Republic, El Salvador, Haiti, Mexico, Nicaragua, and Peru, and 5,164 tons was not prorated. (USDA 1772-53)... Hearings on farm marketing allotments for the 1953-54 sugarcane crop in Puerto Rico have been scheduled under the Sugar Act for August 12, in Santurce, P. R. (USDA 1712-53)

Wool.--Changes in Official Standards of the United States for grades of wool top have been proposed by USDA. Under the proposal, one new grade would be added and specifications would be simplified and put on a measurement basis for all 14 grades. (USDA 1746-53)

ABOUT MARKETING

The following addresses and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Addresses:

Remarks by Mr. F. L. Southerland, Chief, Processed Products Standardization and Inspection Division, Fruit and Vegetable Branch, at the Tri-State Packers Association Meeting on July 10, 1953, regarding Memorandum of Agreement between PMA and the Food and Drug Administration.

Publications:

Directory (Names and Addresses of Personnel Who May be Contacted for Grading and/or Inspection Service on: Poultry and Egg Products and Domestic Rabbits). May 1953. 8 pp. (PMA) (Processed)

U. S. Standards for Grades of Canned Cream Style Corn, Effective July 27, 1953. June 19, 1953. 10 pp. (PMA) (Processed)

U. S. Standards for Grades of Canned Lima Beans, Effective July 21, 1953. June 17, 1953. 13 pp. (PMA) (Processed)

U. S. Standards for Grades of Frozen Succotash, Effective July 7, 1953. June 2, 1953. 12 pp. (PMA) (Processed)

U. S. Standards for Grades of Canned Sweet Cherries, Effective May 15, 1953. April 9, 1953. 18 pp. (PMA) (Processed)

U. S. Standards for Grades of Frozen Lima Beans, Effective July 17, 1953. June 10, 1953. 10 pp. (PMA) (Processed)

Dark Air-Cured Tobacco Market Review - 1952-53 Season (1953 crop). May 1953. 32 pp. (PMA) (Processed)

Fire-Cured Tobacco Market Review - 1952-53 Season (1952 crop). May 1953. 34 pp. (PMA) (Processed)

Components of Operational Rations Used by United States Armed Forces (Revised). May 1953. 21 pp. (PMA) (Processed)

Comparative Suitability of Selected Varieties of Cotton for Six Textile Fabrics. May 1953. 71 pp. (PMA) (Processed)

An Evaluation of the Significance and Use of the K Factor of Yarn Strength and Its Relation to Raw-Cotton Quality. June 1953. 32 pp. (PMA) (Processed)

U. S. Grades for Edible Sugarcane Molasses and the Federal Inspection Services. June 1953. Folder. (PMA) (Processed)

U.S. Grades for Sugarcane Sirup and the Federal Inspection Services. June 1953. Folder (PMA) (Processed)

The Causticaire Scale for Determination of Cotton Fiber Fineness and Maturity. July 1953. 4 pp. (PMA) (Processed)

Receiving, Blocking, and Cutting Meats in Retail Food Stores. Marketing Research Report No. 41. June 1953. 55 pp. (PMA) (Printed)

Livestock Market News Statistics and Related Data, 1952. Statistical Bulletin No. 127. June 1953. 61 pp. (PMA) (Printed)

A Study of Conditions Affecting the Transportation of Grain by Railroad. June 1953. 56 pp. (PMA) (Processed)

Production, Consumption, Foreign Trade, Tariffs, Internal Taxes, Wholesale and Retail Prices, Controls and Similar Information of or Relating to Sugar, and Per Capita National Income in 59 Countries, Based on Latest Information Available in Early June 1953. Unless Otherwise Indicated, Data Generally Relate to the Current Situation. June 19, 1953. 31 pp. (USDA in cooperation with the U. S. Tariff Commission, the Office of International Trade, and the U. S. Dept. of Commerce. (Processed)

Production, Consumption, Foreign Trade, Tariffs, Internal Taxes, Wholesale and Retail Prices, Controls and Similar Information of or Relating to Sugar, and per Capita National Income in 6 Countries - Based on Latest Information Available in Early June 1953. Unless Otherwise Indicated, Data Generally Relate to the Current Situation. July 6, 1953. 5 pp. (USDA in cooperation with the U. S. Tariff Commission, the Office of International Trade, and the U. S. Dept. of Commerce. (Processed)

Purchases and Dispositions of Dairy Products by U. S. Dept. of Agriculture, April 1, 1952 - March 31, 1953, and Summary of Purchases and Sales of Dairy Products Acquired Under Price Support Programs January 1949 - March 1953. June 1953. 10 pp. (PMA) (Processed)

An Appraisal of Certain Central Cotton Markets With Respect to Suitability for Designation for Price Quotations. May 1953. 98 pp. (PMA) (Processed)

The Wheat Quota Referendum. PA No. 230. Folder. (USDA) (Printed)

Wheat Marketing Quotas - Questions and Answers. July 1953. 4 pp. (Printed)

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